TECHNICAL REVIEW DOCUMENT
For
RENEWAL OF OPERATING PERMIT 03OPLR261

Platte River Power Authority – Rawhide Energy Station (Turbines)
Larimer County
Source ID 0690053

May - June 2012

Operating Permit Engineer: Bailey Kai Smith
Operating Permit Supervisor review: Matthew S. Burgett
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I. Purpose

This document establishes the basis for decisions made regarding the applicable requirements, emission factors, monitoring plan and compliance status of emission units covered by the renewed Operating Permit for the Rawhide Energy Station Turbines. The previous Operating Permit for this facility was issued on October 1, 2004 and expired on October 1, 2009. However, since a timely and complete renewal application was submitted, under Colorado Regulation No. 3, Part C, Section IV.C all of the terms and conditions of the existing permit shall not expire until the renewal operating permit is issued and any previously extended permit shield continues in full force and operation.

This document is designed for reference during the review of the proposed permit by the EPA, the public, and other interested parties. The conclusions made in this report are based on information provided in the renewal application submitted on September 26, 2008, additional information received November 28, 2008, previous inspection reports and various email correspondence with the applicant. Please note that copies of the Technical Review Document for the original permit and any Technical Review Documents associated with subsequent modifications of the original Operating Permit may be found in the Division files as well as on the Division website at http://www.cdphe.state.co.us/ap/Titlev.html. This narrative is intended only as an adjunct for the reviewer and has no legal standing.

Any revisions made to the underlying construction permits associated with this facility made in conjunction with the processing of this operating permit application have been reviewed in accordance with the requirements of Regulation No. 3, Part B, Construction Permits, and have been found to meet all applicable substantive and procedural requirements. This operating permit incorporates and shall be considered to be a combined construction/operating permit for any such revision, and the permittee shall be allowed to operate under the revised conditions upon issuance of this operating permit without applying for a revision to this permit or for an additional or revised construction permit.

II. Description of Source

The units included in this permit are four GE Model 7EA and one GE Model 7FA natural gas fired combustion turbines, designed to operate in a simple cycle mode, each rated at a nominal heat input of 900 MMBtu/hour and 1,700 MMBtu/hour, respectively. The facility provides peak electrical generation capacity, and is defined under Standard Industrial Classification 4911. The turbines are equipped with integral dry low NO_X combustion systems. In addition, each Model 7EA turbine is equipped with inlet air fog cooling systems for power augmentation. The turbines are part of the Rawhide Energy Station, which also includes a coal fired boiler and associated coal, ash and lime handling systems. These collocated sources are permitted under Operating Permit 96OPLR142.

The facility is located at 2700 East County Road 82, north of Wellington. The area in which the plant operates is designated as attainment for all pollutants. Wyoming is an affected state within 50 miles of the plant. There are two Federal Class I designated areas within 100 kilometers of the facility: Rocky Mountain National Park and Rawah National Wilderness Area.

Rawhide is considered a listed source under the provisions of Colorado Regulation No. 3, Part A, Section I.B.25, since the facility is a fossil fuel-fired stream electric plants of more than 250 MMBtu/hr heat input, thus the major stationary source threshold is 100 tons per year rather than 250 tons per year. Based on the information provided by the applicant, this facility is categorized as a major stationary source (Potential to Emit > 100 Tons/Year) as of the issue date of this permit. Future modifications at this facility resulting in a significant net emissions increase (see Colorado Regulation No. 3, Part A, Section I.B.37 and 58) for any pollutant as listed in Regulation No. 3, Part A, Section I.B.58 or a modification which is major by itself may result in the application of the PSD review requirements.

Emissions at the facility are as follows. Actual emissions at this facility can be found on page 15.

	Potential to Emit (tons/year)							
	NO_X	VOC	CO	SO_2	PM	PM_{10}	Ind HAPS	Tot HAPS
Turbines								
Unit A	55.6	3.1	89.7	3.8	28.9	28.9	0.99	1.28
Unit B	55.6	3.1	89.7	3.8	28.9	28.9	0.99	1.28
Unit C	55.6	3.1	89.7	3.8	28.9	28.9	0.99	1.28
Unit D	55.6	3.1	89.7	3.8	28.9	28.9	0.99	1.28
Unit F	132.4	27.7	80.0	1.8	39.1	39.1	2.15	2.86
Total Turbines (03OPLR261)	354.8	40.1	438.8	17.0	154.7	154.7	6.10	7.96
Rawhide Energy Station								
Facility (96OPLE142)	6343	54	1971	1832	590	450	>10	>25

Total Rawhide Emissions	6697.8	94.1	2409.8	1849.0	744.7	604.7	>10	>25

Applicable Requirements

NSPS Subpart GG

The four existing turbines permitted in the original Title V permit, Units A-D, are subject to the provisions of NSPS Subpart GG as identified in the original permit issuance. Unit F, the new combustion turbine, is regulated under NSPS Subpart KKKK and is considered exempt from Subpart GG according to §60.4305.

NSPS Subpart KKKK

The final rule for combustion turbines was promulgated on July 6, 2006 and applies to stationary combustion turbines that commenced construction, modification, or reconstruction after February 18, 2005. The four turbines permitted in the original Title V permit were constructed prior to February 18, 2005 and subject to the provisions of the existing NSPS rule for combustion turbines, Subpart GG. Unit F commenced construction on May 23, 2008 and is subject to the provisions of Subpart KKKK.

NESHAP Subpart YYYY

The final rule for combustion turbines was published in the Federal Register on March 5, 2004. Units A, B, and C were constructed prior to the applicability date of the rule. Units D and F were installed after the applicability date and are considered "new" turbines (commenced construction after January 14, 2003) and are subject to the MACT. However, on August 18, 2004, the EPA issued a stay for gas-fired lean premix and diffusion flame turbines. Therefore, the "new" turbines at this facility are only subject to the initial notification requirements and need not comply with any other requirement of 40 CFR Part 63 Subpart YYYY until EPA takes final action to require compliance and publishes a document in the Federal Register. The initial notification requirements have already been fulfilled and were not included in the permit.

CAM

The turbines at this facility do not utilize a control device to reduce emissions and therefore are not subject to CAM requirements. Inlet fogging of the unit is utilized for the purposed of power augmentation and is not considered a form of emissions control.

Greenhouse Gases

The potential-to-emit of greenhouse gas (GHG) emissions from this facility is greater than 100,000 TPY CO_2e. Future modifications greater than 75,000 tons per year CO_2e may be subject to regulation (Regulation No. 3, Part A, I.B.44).

III. Discussion of Modifications Made

Source Requested Modifications

The renewal application received on September 26, 2008 requested the following modifications:

- Incorporate construction permit 07LR0017 for the new combustion turbine, Unit F.

- Revise the heat input rating for the four existing turbines.
- Add NSPS Subpart KKKK as a specific non-applicable requirement in the permit shield for Units A, B, C, and D.
- In discussions with the Division, the source indicated they had concerns with increased CO emissions in cold weather conditions. The source asked the Division to investigate alternative averaging times and cold startup definitions to avoid potential non-compliance issues in the future.

The source's requested modifications were addressed as follows:

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- Changed responsible official in accordance with information submitted May 14, 2012.

Section I – General Activities and Summary

- The permitted activities description was changed to account for the newly installed Unit F turbine and the updated heat input rating for the four existing units. These changes were also reflected in summary of emission units table in Condition 6.

Section II – Specific Permit Terms

- Colorado Construction Permit 07LR0017 for Unit F was issued initial approval on August 31, 2007. Self-certification was received by the Division on November 26, 2008. A final approval permit has been drafted and is awaiting internal review before issuance. The appropriate provisions from the draft final approval construction permit have been directly incorporated into this operating permit as follows:
  - *Visible emissions shall not exceed twenty percent (20%) opacity during normal operation of the source. During periods of startup, process modification, or adjustment of control equipment visible emissions shall not exceed 30% opacity for more than six minutes in any sixty consecutive minutes. EPA Method 9 shall be used to measure opacity. (Condition 1)*

    The Regulation No. 1 opacity requirements from the construction permit were included in the operating permit. Additionally, while not explicitly stated in the permit, this turbine is subject to the state only opacity standards in Reg 6, Part B, Section II.C.3 for new fuel-burning equipment. This requirement was also included in the operating permit.
  - *The permit number and AIRS ID number (for example "AIRS ID: 041") shall be marked on the subject equipment for ease of identification. (Condition 2)*

    This is a construction permit only requirement and was not included in the operating permit.

- *Emissions of air pollutants shall not exceed the following limitations (as calculated in the Division's preliminary analysis)*

Pollutant	*Annual Limit (tpy)*
Particulate Matter:	*39.1*
PM10:	*39.1*
Sulfur Dioxide:	*1.8*
Nitrogen Oxides:	*132.4*
Volatile Organic Compounds:	*27.7*
Carbon Monoxide:	*80.0*

Compliance with the annual limit shall be determined on a rolling (12) month total. By the end of each month a new twelve-month total is calculated based on the previous twelve months' data. The permit holder shall calculate monthly emissions and keep a compliance record on site for Division review. NO_x and CO emissions shall be determined using the CEMs required in Condition No. 6 (Condition 3)

The annual emission limitations have been included in the operating permit. The facility is required to calculate emission on a 12-month rolling basis using the CEMs.

- *This source shall be limited to a maximum fuel use rate as listed below and all other activities, operational rates and numbers of equipment as stated in the application. Annual records of the actual fuel use rate shall be maintained by the applicant and made available to the Division for inspection upon request.*

  Heat input into the combustion turbine through pipeline quality natural gas as fuel shall not exceed 6,060,664 million Btu per year.

  Compliance with the yearly fuel use limit shall be determined on a rolling twelve (12) month total. By the end of each month a new twelve-month total is calculated based on the previous twelve months' data. The permit holder shall calculate monthly consumption of pipeline quality natural gas and keep a compliance record on site for Division review.

  The heat input and fuel consumption shall be monitored and recorded monthly using the data acquisition and handling systems (DAHS) for the continuous emission monitoring systems (CEMs) required by Condition No. 6. (Condition 4)

  The annual fuel use limitation has been included in the operating permit. The permit specifies the heat input will be monitored using the DAHS.

- *This emission source is subject to the Prevention of Significant Deterioration (PSD) provisions. The following controls have been determined as Best Available Control Technology (BACT) for the pollutants, and shall be applied for minimization/control of the following pollutants: (Condition 5)*

  <u>Oxides of Nitrogen (NO_x)</u>

a. *Dry Low NO_x combustion system (DLN 2.6). Except as provided below, emissions of NO_x shall not exceed 9 ppmvd at 15% O_2 (on a 3-hour rolling average based on actual operation. Excluding startup, shutdown, and combustion tuning/testing periods).*

b. *During startup and shutdown, emissions of NO_x shall not exceed 100 ppmvd at 15% O_2, averaged over the duration of the startup and/or shutdown period. Emissions during startup and shutdown must be included for determination of compliance with the Condition No. 4 annual limit. Records of the number of startup and shutdown hours shall be recorded and maintained and made available to the Division upon request.*

c. *During periods of combustion tuning and testing, emissions of NO_x shall not exceed 100 ppmvd at 15% O_2, on a 1-hour average. Use of this emission limit for purposes of combustion tuning and testing shall not exceed 40 hours in any calendar year. Emissions during combustion tuning and testing must be included for determination of compliance with the Condition No. 4 annual limit. Records of the number of combustion tuning and/or testing hours shall be recorded and maintained and made available to the Division upon request.*

"Startup" means the setting in operation of any air pollution source for any purpose. Setting in operation for the turbine begins when fuel is injected into the turbine. Setting in operation for the turbine ends 20 minutes after the turbine reaches pre-mix steady state (fully staged) combustion mode.

"Shutdown" means the cessation of operation of any air pollution source for any purpose. The cessation of operation for the turbine begins when the command signal is initiated by the turbine operator to shutdown the unit and ends when fuel is no longer being fired in the turbine.

"Combustion tuning and testing" means the operation of the unit for combustion tuning and testing operations after a unit overhaul or as part of routine maintenance operations. Combustion tuning and testing can occur throughout the range of operating conditions.

Compliance with the NO_x BACT limitations shall be monitored as follows:

Compliance with the NO_x BACT emission limitation in 5a shall be monitored using the CEMs required in Condition No. 6. Except as provided for below, all the CEMs concentration (ppm) data points shall, at the end of each clock hour, be summarized to generate the average NO_x concentration. For each 3-hour rolling period, the average NO_x concentration shall be compared to the limitations in 5a.

Compliance with the NO_x BACT emission limitation in 5b shall be monitored using the CEMs required in Condition No. 6. All concentration (ppm) data points within the startup or shutdown period shall be averaged together to generate the average NO_x concentration

for a given startup or shutdown period. The average NO_x concentration for each startup or shutdown period shall be compared to the limitation in 5b. Minute measurements (ppmvd at 15% O_2) calculated with diluent concentrations greater than 19.0 percent O_2 can be excluded from the startup and/or shutdown duration averaged value.

In the event that the startup ends within a clock hour or the shutdown begins within a clock hour, all non-startup and/or non-shutdown concentration (ppm) data points within that clock hour shall be averaged together to generate the average NO_x concentration. That average concentration shall be included in the 3-hour rolling average and compared to the limitation in 5a.

Compliance with the NOx BACT emission limitation in 5c shall be monitored using the CEMs required in Condition No. 6. An average NO_x concentration shall be calculated using all concentration (ppm) data points generated by the CEMs during any actual hour during the combustion tuning and/or testing period and each hourly average shall be compared to the limitation in 5c as appropriate.

For periods of combustion tuning and/or testing that last less than one hour, the average NO_x concentration shall be calculated using all concentration (ppm) data within the combustion tuning and/or testing period.

In the event that combustion tuning and/or testing begins and/or ends within a clock hour, all non-combustion tuning and/or testing concentration (ppm) data points within that clock hour shall be averaged together to generate the average NO_x concentration. That average concentration shall be included in the 3-hour rolling average and compared to the limitation in 5a.

Hours of combustion tuning and/or testing shall be summed together to monitor compliance with the 5c hour per calendar year limit.

<u>Particulate Matter (Total Particulate Matter and PM_{10})</u>

d. *Use of pipeline quality natural gas (as defined by Acid Rain Provisions, 40 CFR Part 72). Emissions of particulate matter (including condensable) shall not exceed 18 lb/hr and 0.0135 pounds per million Btu of heat input, averaged based upon the duration of the applicable stack test using EPA approved methods.*

e. *The permittee shall maintain records demonstrating that the natural gas burned meets the definition of pipeline quality natural gas as defined in 40 CFR Part 72. Specifically, the permittee shall demonstrate that the natural gas burned has a total sulfur content less than 0.5 grains/100 SCF. The demonstration shall be made using any*

of the methods identified in 40 CFR Part 75 Appendix D, Section 2.3.1.4. These records shall be made available to the Division upon request.

The BACT limits from this PSD construction permit were included in the operating permit. The definition of "combustion tuning and testing" was modified to specify that "testing" also includes periodically required WECC generator reliability testing.

- *A continuous emission monitoring system (CEMs) shall be installed, calibrated, and operated to determine and record: (Condition 6)*
  - *Concentration of Oxides of Nitrogen, ppmvd, corrected to 15% O_2, hourly average, 3-hour rolling average;*
  - *Emissions of Oxides of Nitrogen, pounds per hour, tons per month, tons per rolling twelve month period;*
  - *Concentration of Carbon Monoxide, ppmvd hourly average, corrected to 15% O_2;*
  - *Emissions of Carbon Monoxide, pounds per hour, tons per month, tons per rolling twelve month period;*
  - *Concentration of Oxygen (O_2), percent hourly average;*
  - *Operating mode – startup, shutdown, combustion tuning/testing or standard operation;*
  - *Load in gross MW, at which the turbine is operating; and*
  - *Fuel flow rate, hundreds of standard cubic feet per hour (hscf/hour), and Heat Input, mmBtu/hour and total mmBtu/year.*

The CEMs shall provide emission data to estimate the necessary hourly, 3-hour rolling average, monthly and annual (12-month rolling basis) emission rates of NO_x and CO to be used in determining compliance with CO and NO_x emission limits (Condition No. 3) and NO_x BACT limits (Condition No. 5).

When quality assured data is not available from the CEMs, the missing data substitution procedures set forth in 40 CFR Part 75, Subpart D shall be followed. Although CO emissions are not specifically referenced in the Subpart D procedures, the CEMs data acquisition system shall be programmed to substitute CO emissions using the same procedures specified for NO_x.

Except where noted below, the fuel flow monitor and NO_x and diluent CEMs shall meet the applicable requirements in 40 CFR Part 75, the performance specification requirements in 40 CFR Part 75 Appendix A, the quality assurance quality control requirements in 40 CFR Part 75 Appendix B and D, the conversion procedures of Appendix F and the traceability products of Appendix H. In addition, NO_x monitor RA testing will be performed in ppm @ 15% O_2 measurement units, and will be performed according to 40 CFR Part 60, Appendix B, Specification 2. The QA/QC testing frequency of the NOx and diluent CEMs will be in accordance with Part 75, Appendix B and D.

Except where noted below, the CO CEMs shall meet the applicable requirements in 40 CFR Part 60 Subpart A § 60.13, the performance specification requirements in 40 CFR Part 60 Appendix B and the quality assurance/quality control requirements in 40 CFR Part 60 Appendix F, except that cylinder gas audit (CGA) testing is not required during quarters with less than 168 hours of operating time.

CO monitor relative accuracy (RA) testing will be performed in ppm @ 15% O_2 measurement units, and will be performed according to 40 CFR Part 60, Appendix B, Performance Specification 4A. RA testing will be performed every four operating quarters according to 40 CFR part 75, Appendix B requirements for a primary monitor.

NO_x and CO CEMs data shall meet the applicable "primary equipment hourly operating requirements" for hourly average calculation methodology specified in 40 CFR part 75 Subpart B § 75.10(d).

When determining compliance with the NO_x startup and shutdown BACT limit in Condition No. 5b, minute measurements (ppmvd at 15% O_2) calculated with diluent concentrations greater than 19.0 percent O_2 can be excluded from the startup or shutdown duration averaged value.

The quality assurance/quality control plans shall be made available to the Division upon request. Revisions shall be made to the plans at the request of the Division.

The initial RA testing required by this condition shall occur within 180 days after commencement of operation of the Unit F turbine.

The CEM requirements were included in the operating permit. The requirements for initial RA testing were not included as this has already occurred.

- *The turbine is an affected unit and is subject to the Acid Rain Requirements in 40 CFR Parts 72 through 78. A Phase II Acid Rain Permit application shall be submitted at least 24 months prior to commencing operation of the unit (Condition 7)*

  The Acid Rain requirements for this turbine were included in the Acid Rain Permit in Section III of the operating permit.

- *No owner or operator shall cause or permit to be emitted into the atmosphere from any fuel-burning equipment, particulate matter in the flue gases which exceeds the following (Reference: Regulation No. 1, III.A.1.c): (Condition 8)*

  0.1 lbs. per 10^6 BTU heat input for fuel burning equipment of greater than $500x10^6$ BTU per hour or more

  This requirement was included in the operating permit.

- *On and after the date on which the required performance test is completed, no owner or operator subject to the provisions of this regulation may discharge, or cause the discharge into the atmosphere sulfur dioxide in excess of (Reference: Regulation No. 6, Part B, II.D.3.b): (Condition 9)*

Sources with heat input of 250 million Btu per hour or greater: 0.35 lbs. SO_2/million Btu

This requirement was included in the operating permit.

- *This source is subject to the New Source Performance Standards requirements of Regulation No. 6, Part A, Standards of Performance for Stationary Combustion Turbines (Subpart KKKK) including, but not limited to, the following: (Condition 10)*

  a. *Nitrogen Oxides*

  Concentration of Nitrogen Oxides in the turbine exhaust shall not exceed:

  15 ppmvd at 15% O_2 or 0.43 lb/MWh of useful output (on a 4-hr rolling average) (§ 60.4320(a)).

  Compliance with the NO_X emission limits shall be monitored using the NO_X continuous emission monitoring system required by 40 CFR Part 60 Subpart KKKK §§ 60.4335(b) and 60.4345.

  b. *Sulfur Dioxide*

  You must not cause to be discharged into the atmosphere from the subject stationary combustion turbine any gases which contain SO2 in excess of 0.90 lb/MWh gross output, or

  You must not burn in the subject stationary combustion turbine any fuel which contains total potential sulfur emissions in excess of 0.060 lb SO_2/MMBtu heat input. (§ 60.4330(a)).

  Compliance with the fuel sulfur content limit shall be presumed when burning pipeline quality natural gas. The methods specified in 40 CFR Part 60 Subpart KKKK § 60.4365 shall be used to demonstrate the natural gas meets the definition of pipeline quality natural gas.

  c. *General Requirements*

  You must operate and maintain your stationary combustion turbine, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction (40 CFR Part 60 Subpart KKKK § 60.4333(a)).

  d. *Continuous Emission System Monitoring Requirements*

  (i) *The continuous emission monitoring system (CEMS) shall meet the requirements specified in Condition No. 6 in accordance with § 60.4345(e).*

  (ii) *Data from the CEMS shall be used to identify excess emissions as specified in § 60.4350.*

e. *Performance Testing Requirements*

(i) *An initial performance test shall be conducted in accordance with the provisions in 40 CFR Part 60 Subpart KKKK § 60.4405.*

f. *Reporting Requirements*

(i) *For each affected unit required to continuously monitoring parameters or emissions, or to periodically determine the fuel sulfur content under this subpart, you must submit reports of excess emissions and monitor downtime in accordance with 40 CFR Part 60 Subpart A, § 60.7(c). Excess emissions must be reported for all periods of unit operation, including start-up, shutdown and malfunction (40 CFR Part 60 Subpart KKKK § 60.4375(a)).*

Note that the source is exempted from monitoring the sulfur content of the fuel as provided for in 40 CFR Part 60 Subpart KKKK § 60.4365.

(ii) *Excess emissions and monitor downtime for NO_X are defined in 40 CFR Part 60 Subpart KKKK § 60.4380(b).*

(iii) *All reports required under § 60.7(c) must be postmarked by the 30^{th} day following the end of each 6-month period. (40 CFR Part 60 Subpart KKKK § 60.4395).*

In addition, the following requirements of Regulation No. 6, Part A, Subpart A, General Provisions, apply.

a. At all times, including periods of start-up, shutdown, and malfunction, the facility and control equipment shall, to the extent practicable, be maintained and operated in a manner consistent with good air pollution control practices for minimizing emissions. Determination of whether or not acceptable operating and maintenance procedures are being used will be based on information available to the Division, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. (Reference: Regulation No. 6, Part A. General Provisions from 40 CFR 60.11

b. No article, machine, equipment or process shall be used to conceal an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. (§ 60.12)

c. Written notification of construction and initial startup dates shall be submitted to the Division as required under § 60.7.

d. Records of startups, shutdowns, and malfunctions shall be maintained, as required under § 60.7.

e. Written notification of continuous monitoring system demonstrations shall be submitted to the Division as required under § 60.7.

f. Written notification of opacity observation or monitor demonstrations shall be submitted to the Division as required under § 60.7.

g. Excess Emission and Monitoring System Performance Reports shall be submitted as required under § 60.7.

h. Performance tests shall be conducted as required under § 60.8

i. Continuous monitoring systems shall be maintained and operated as required under § 60.13.

The applicable provisions from NSPS Subpart KKKK were added to the operating permit. Applicability of the NSPS general provisions was also noted. The initial performance test requirement was not included as this test has already been conducted.

- *This source is subject to the requirements of Regulation No. 8, Part E, III.YYYY: National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines (Subpart YYYY) including, but not limited to, the following: (Condition 11)*

  Compliance with the Initial Notification requirements set forth in § 63.6145 is required. The source need not comply with any other requirement of this subpart until EPA takes final action to require compliance and publishes a document in the Federal Register.

  This condition has been included in the operating permit. As of the issuance date of the permit, the EPA has yet to take action to require compliance for new lean premix gas-fired turbines.

- *Prevention of Significant Deterioration (PSD) requirements shall apply to this source at any such time that this source becomes major solely by virtue of a relaxation in any permit condition. Any relaxation that increases the potential to emit above the applicable PSD threshold will require a full PSD review of the source as though construction had not yet commenced on the source. The source shall not exceed the PSD threshold until a PSD permit is granted. (Condition 12)*

  This condition was not included in the operating permit since no actual requirements apply. The PSD status of the source is discussed in Section I, Condition 3 of the permit.

- *APEN reporting requirements (Condition 13).*

  The APEN reporting requirements are included in Section V (General Conditions) Condition 22.e of the operating permit.

- *This source is subject to the provisions of Regulation No. 3 Part C, Operating Permits (Title V of the 1990 Federal Clean Air Act Amendments). The provisions of this construction permit must be incorporated into the operating permit. The application for the modification to the operating permit is due within one year of commencing operation of the equipment covered by this permit. (Condition 14)*

  This condition was not included in the operating permit. With this permit action the requirement is fulfilled.

- *All previous versions of this permit are canceled upon issuance of this permit. (Condition 15)*

  This is not a requirement for the source and pertains to the construction permit only and was not included in the operating permit.

- The Division has reviewed the CO BACT limitation and considered PRPA's concern during periods of cold weather. Since the facility has only limited and sporadic cold weather experience, sufficient data for extreme cold weather operations are not available. At this time, the Division does not feel it is appropriate to include an alternative limit since PRPA is currently unable to demonstrate the inability to comply with the limit. When cold weather data are available, and if at some time in the future, the permittee demonstrates that they cannot consistently meet the 25 ppm CO BACT limit, the Division will review the data, reconsider an alternative BACT limit for cold weather operation, and modify the permit if necessary and appropriate.

Section III – Acid Rain Program

- Unit F was added as an applicable unit to the Acid Rain permit.

Section IV –Permit Shield

- NSPS Subpart KKKK was added to the permit shield as a specific non-applicable condition for Units A, B,C, and D (S601-4).

Other Modifications

In addition to the source requested modifications, the Division has included changes to make the permit more consistent with recently issued permits, include comments made by EPA on other Operating Permits, as well as correct errors or omissions identified during inspections and/or discrepancies identified during review of this renewal. These changes are as follows:

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- It should be noted that the monitoring and compliance periods and report and certification due dates are shown as examples. The appropriate monitoring and

compliance periods and report and certification due dates will be filled in after permit issuance and will be based on permit issuance date. Note that the source may request to keep the same monitoring and compliance periods and report and certification due dates as were provided in the original permit. However, it should be noted that with this option, depending on the permit issuance date, the first monitoring period and compliance period may be short (i.e. less than 6 months and less than 1 year).

Section I – General Activities and Summary

- Revised the language in Condition 1.4 include current conditions that are state-only enforceable.

Section II – Specific Permit Terms

- Some minor permit languages changed were made to further clarify the applicable requirements.

- Language specifying the methodology for monitoring compliance with emissions limitations using the CEMS was added to Condition 2 and in Condition 1 under the specific emissions limitations.

  A requirement was included to conduct RATAs in the units of the emission limitation for all applicable limitations. The intent of this condition is not to suggest that the source conduct a Reference Method 2 fluegas flow rate measurement to determine a lb/hr rate. The Reference Method lb/hr rate will be calculated using the measured lb/MMBtu rates and CEMS provided fuel flow rates and fuel heat content value.

  Historically, the source has calculated relative accuracy using the alternative method of 10% of the applicable standard for pollutants with very low emission rates. The source expressed concern with achieving the relative accuracy standard without the option to use the alternative methodology for a lb/hr RATA. A lb/hr standard is needed in order to utilize an alternative method for the lb/hr relative accuracy determination. In discussions with the Division, it was determined that the source should use the nominal heat input rating of each unit, the permitted maximum fuel throughput, and annual emission limit (in tons/year) to determine an equivalent lb/hr standard. This effective standard may be used in the alternative method (10% of the applicable standard) for the lb/hr RATA.

Section III – Permit Shield

- Updated the Reg 3 Citation for the permit shield

Section IV – General Permit Conditions

- Updated the general permit conditions to the current version (5/22/2012).

Appendices

- Updated Appendices B and C (Monitoring and Permit Deviation Reports and Compliance Certification Reports) to the newest versions (2/20/2007).

- EPA's mailing address was revised (Appendix D). Removed the Acid Rain addresses in Appendix D, since annual certification is no longer required and submittal of quarterly reports/certifications is done electronically.
- Cleared the list of modifications from Appendix F related to the previous issuance.

PRPA - Rawhide Turbines Actual Emissions

		Actual Emissions (tons/year)					
	Data Year	NO_X	VOC	CO	SO_2	PM	PM_{10}
Unit A	2007	5.5	0.04	6.0	0.12	1.2	1.2
Unit B	2007	3.2	0.02	4.0	0.06	0.6	0.6
Unit C	2007	4.5	0.03	4.2	0.09	0.8	0.8
Unit D	2007	5.0	0.03	4.2	0.10	0.9	0.9
Unit F	2008	20.5	1.0	9.4	0.40	3.8	3.8
Total		38.7	1.12	27.8	0.77	7.3	7.3